

3.5 Regional GHG Reduction Measures

Measures implemented by regional entities and programs will address CA2020 goals in four sectors: building energy, transportation and land use, solid waste generation, and water conveyance and wastewater treatment. Regional measures for these four sectors are listed the following tables. Most of these measures have already been adopted by regional entities and are already underway; RCPA is expected to lead and support the development of any new or enhanced regional measures. A full description of each measure, including the assumptions and methodology used to calculate GHG reductions, is included in Appendix C.

Regional measures also include those focused on the four goals in the advanced climate initiatives sector. Tables 3-6 through 3-10, below, present these measures.

Table 3-6. Regional Measures to Reduce Building Energy Emissions

Number	Name	Description	Responsible Entities	2020 GHG Reductions (MTCO ₂ e/year)
Goal 1: Increase building energy efficiency				
1-R1	Community Energy Efficiency Retrofits for Existing Buildings	Includes all existing programs to improve the energy efficiency of community buildings (including homes and businesses) through retrofits.	<i>Implemented by:</i> Energy Independence Office, RCPA, SCP	3,954
1-R2	Expand Community Energy Efficiency Retrofits Program	Expand programs to promote energy efficiency in existing residential buildings and commercial buildings, and remove funding barriers for energy efficiency improvements.	<i>Implemented by:</i> Energy Independence Office, RCPA, SCP	12,394
Goal 2: Increase renewable energy use				
2-R1	Community Choice Aggregation	SCP is a community choice aggregation program and electricity provider that works with PG&E to provide their customers between 33% and 100% renewable energy.	<i>Implemented by:</i> SCP	48,004
Goal 3: Switch Equipment from fossil fuel to electricity				
3-R1	Stationary Fuel Switching Incentives	Will provide incentives and financing options for fuel switching from fossil fuel use to electricity.	<i>Implemented by:</i> SCP, Sonoma County Energy Independence Office, RCPA, Bay Area Air Quality Management District (BAAQMD), Northern Sonoma County Air Pollution Control District (NSCAPCD)	1,022

Table 3-7. Regional Measures to Reduce On-Road Transportation and Off-Road Equipment Emissions

Number	Name	Description	Responsible Entities	2020 GHG Reductions (MTCO ₂ e/year)
Goal 5: Encourage a shift toward low-carbon transportation options				
5-R1	Improve and Increase Transit Service	Increase bus service, implement bus preferential treatments, implement bus rapid transit and/or express service, improve transit marketing, and improve transit amenities.	<i>Implemented by:</i> SCTA, Sonoma County Transit, Petaluma Transit, and Santa Rosa City Bus	147
5-R2	Supporting Transit Measures	Implement measures designed to improve the county's transit system.	<i>Implemented by:</i> SCTA, Sonoma County Transit, Petaluma Transit, and Santa Rosa City Bus	NQ ¹
5-R3	Sonoma-Marin Area Rail Transit (SMART)	Ensure policies support planned SMART corridor, such as transit-oriented development at planned SMART stations, future local transit planning for SMART, and pedestrian and bicycle facilities to connect to SMART stations.	<i>Implemented by:</i> SMART and local jurisdictions with SMART stations	NQ ¹
5-R4	Trip Reduction Ordinance (TRO)	Develop and implement a mandatory TRO for employers with 50+ employees by offering pre-tax transit expenses, transit or vanpool subsidy, free or low-cost shuttle, or an alternate trip reduction benefit. The TRO will also include a non-trip reduction alternative, in the form of purchase of an equivalent amount of GHG offsets, for employers choosing not to implement trip reductions.	<i>Implemented by:</i> SCTA	6,113
5-R5	Supporting Measures for the Transportation Demand Management (TDM) Program	Implement TDM measures to support the TRO.	<i>Implemented by:</i> SCTA	NQ ¹

Number	Name	Description	Responsible Entities	2020 GHG Reductions (MTCO ₂ e/year)
5-R6	Reduced Cost Transit Passes	Provide reduced cost transit passes to encourage commuters to take transit. If this measure is made mandatory by a jurisdiction, then the measure will also include a non-trip reduction alternative in the form of purchase of an equivalent amount of GHG offsets.	<i>Implemented by:</i> SCTA, Sonoma County Transit, Petaluma Transit, and Santa Rosa City Bus	5,660
5-R7	Alternative Travel Marketing and Optimize Online Service	Conduct countywide marketing efforts (and consistent community-wide efforts) to provide information on alternate travel modes.	<i>Implemented by:</i> SCTA, SMART, Sonoma County Transit, Petaluma Transit, and Santa Rosa City Bus	4,528
5-R8	Safe Routes to School	Create safe routes to school programs for communities where they currently do not exist.	<i>Implemented by:</i> SCTA	14,234
5-R9	Car-sharing Program	Build on the work that the Sonoma County Spare-the-Air Resources Team has already conducted to implement a car-sharing program.	<i>Implemented by:</i> SCTA	NQ ¹
5-R10	Bike Sharing Program	Create a countywide Public Bike Share Program to encourage a shift from automobiles to bicycle use.	<i>Implemented by:</i> SCTA	NQ ¹
Goal 7: Encourage a shift toward low-carbon fuels in vehicles and equipment				
7-R1	Shift Sonoma County (Electric Vehicles)	Countywide EV promotion program, in partnership with SCP.	<i>Implemented by:</i> RCPA, SCTA, and SCP	11,353
7-R2	Alternative Fuels for Transit Vehicles	Replace diesel and gasoline buses with hybrid buses, compressed natural gas buses, or electric buses.	<i>Implemented by:</i> SCTA, Sonoma County Transit, Petaluma Transit, and Santa Rosa City Bus	40
^{1.} These measures were not quantified (NQ) for GHG reductions because they are either qualitative supporting measures (e.g., 5-C2) or they are already incorporated into the BAU forecasts (e.g., 5-C-3). Refer to Appendix C for more information.				

Table 3-8. Regional Measures to Reduce Solid Waste Generation Emissions

Number	Name	Description	Responsible Entities	
9-R1	Waste Diversion Goal	Increase the diversion rate of the total waste stream.	<i>Implemented by:</i> Sonoma County Waste Management Agency (SCWMA) with cooperation from RCPA and local jurisdictions	26,229
10-R1	Increase Landfill Methane Capture and Use for Energy	Develop new waste-to-energy projects at landfills.	<i>Implemented by:</i> SCWMA, landfill owners/operators	39,132

Table 3-9. Regional Measures to Reduce Water Conveyance and Wastewater Treatment Emissions

Number	Name	Description	Responsible Entities	2020 GHG Reductions (MTCO ₂ e/year)
Goal 11: Reduce Water Consumption				
11-R1	Countywide Water Conservation Support and Incentives	Sonoma County Water Agency (SCWA) will continue to work with its water contractors and others to incentivize local water conservation and water-use efficiency measures.	<i>Implemented by:</i> SCWA, supported by local jurisdictions	NQ ¹
Goal 12: Increase recycled water and greywater use				
12-R1	Recycled Water	Use recycled water instead of potable water.	<i>Implemented by:</i> Water/wastewater service providers	146
Goal 13: Increase water and wastewater infrastructure efficiency				
13-R1	Infrastructure and Water Supply Improvements	Reduce energy demand from water supply infrastructure, investigate new water supply sources, and increase local water production.	<i>Implemented by:</i> SCWA and other water/wastewater service providers	233
13-R2	Wastewater Treatment Equipment Efficiency	Reduce energy demand from wastewater treatment operations.	<i>Implemented by:</i> Wastewater service providers	529
Goal 14: Increase use of renewable energy in water and wastewater systems				
14-R1	Sonoma County Water Agency Carbon-Free Water by 2015	SCWA has contracted to procure 100% of its electricity needs through renewable and carbon-free resources, thus achieving a carbon-neutral electricity supply.	<i>Implemented by:</i> SCWA	2,145
¹ These measures were not quantified (NQ) for GHG reductions because they are qualitative supporting measures. Refer to Appendix C for more information.				

Table 3-10. Advanced Climate Initiative Measures

Number	Name	Description	Responsible Entities	2020 GHG Reductions (MTCO ₂ e/year)
Goal 17: Protect and Enhance the Value of Open and Working Lands				
17-R1	Conserve Open Space and Working Lands	Preserve natural open space and working lands to prevent loss of carbon stock due conversion of such lands to urban uses or other land use changes that also drive increased vehicle miles traveled.	<i>Implemented by:</i> Sonoma County Agricultural Preservation and Open Space District working with other agencies (including cities and the County) and non-governmental partners	NQ
Goal 18: Promote Sustainable Agriculture				
18-R1	Sustainable Agriculture Certification Programs	Support sustainable agriculture certification programs that reduce GHG emissions and/or enhance carbon stocks or increase sequestration.	<i>Implemented by:</i> Collaborative effort with agriculture groups, the County, and agriculture-related agencies	NQ
18-R2	Promote Local, Sustainable Food and Ag Products	Support local farmer's markets to provide communities with sustainable local food.	<i>Implemented by:</i> jurisdictions with support from regional entities	NQ
18-R3	Urban Agriculture	Amend zoning codes to allow urban farming and gardens in appropriate areas.	<i>Implemented by:</i> cities and the county with support from regional entities such as the University of California (UC) Cooperative Extension	NQ

Number	Name	Description	Responsible Entities	2020 GHG Reductions (MTCO ₂ e/year)
Goal 19: Increase Carbon Sequestration				
19-R1	Rangeland Carbon Farming	Promote increased carbon sequestration on working rangelands.	<i>Implemented by:</i> The County with support from Resource Conservation Districts, Natural Resources Conservation Service, and UC Cooperative Extension	NQ ¹
Goal 20: Reduce Emissions from Consumption of Goods and Services				
20-R1	Measure and Track Consumption-based Emissions	Develop metrics and tools to analyze and track carbon intensity of goods and services consumed in Sonoma County.	<i>Implemented by:</i> RCPA with support from the SCWMA	NQ ¹
20-R2	Educate Consumers	Provide information to residents and businesses about the carbon content of goods and services consumed in Sonoma County with emphasis on options that will reduce GHG emissions.	<i>Implemented by:</i> RCPA with support from the SCWMA	NQ ¹
20-R3	Encourage and Promote Sustainable Consumption	Develop and provide resources that help residents get the goods and services they need with the least full life-cycle GHG emissions.	<i>Implemented by:</i> RCPA	NQ ¹
20-R4	Reduce carbon intensity of product supply chains	Explore partnerships and seek opportunities to support local businesses reducing the carbon intensity of their supply chain.	<i>Implemented by:</i> RCPA	NQ ¹
¹ These measures were not quantified (NQ) for GHG reductions because they are qualitative supporting measures. Refer to Appendix C for more information.				